Data sheet

ECL Comfort 100M
Mixing control, 230 V a.c. and 24 V a.c.

Application

The ECL Comfort 100M is a controller for weather compensation of the flow temperature in directly or indirectly connected district heating systems or in boiler systems with mixing valve.

The ECL Comfort 100M controller has triac outputs for motorized valve control and relay output for pump control.

Temperature sensors for flow temperature, outdoor and room temperature can be connected.

The enclosure is designed for wall and panel mounting.

Functions

It is possible to connect an outdoor sensor as well as a room sensor. The outdoor sensor enables weather compensation, and with the room sensor, a reference room control function is obtainable.

An analog clock can be mounted on the controller if a reduced temperature is requested.

During reduced temperature operation, the room/ flow temperature is lowered according to the outdoor temperature or kept at a fixed reduced value.

The heating circuit is frost protected at 10 °C by the flow temperature during stand-by.

The circulation pump is controlled according to reference temperature. The pump is ON when Tref > 20 °C or Tout < +2 °C.

Each of the minimum and maximum flow temperatures can be set to one of two values.

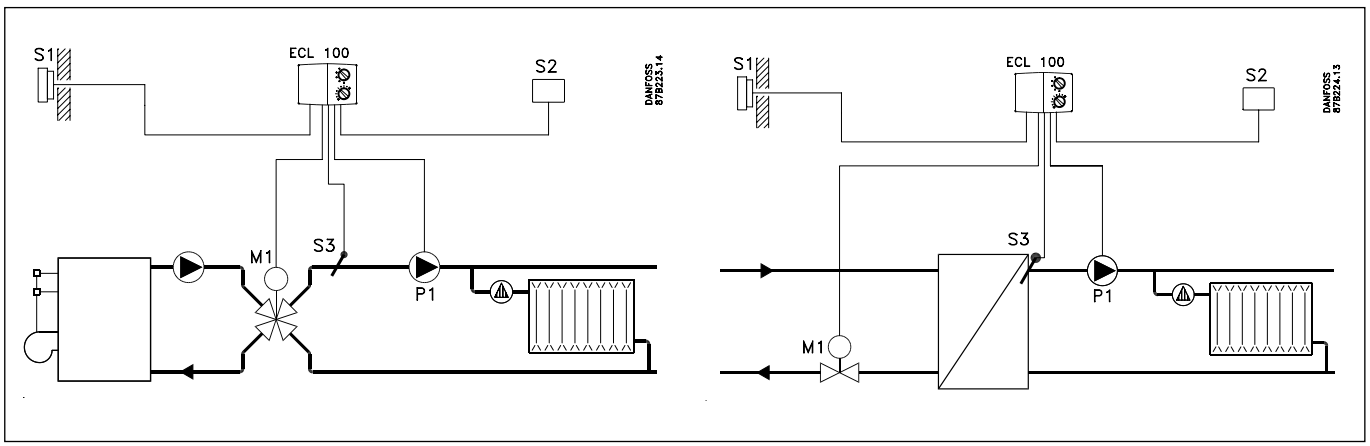
The neutral zone and control parameters are factory set. The running time of the motorized valve can be set to short or long.

The controller can be used as a slave in systems with master/slave controllers. The controller is addressed with DIL switches.

The room panel ECA 60 / 62* or the remote control ECA 61 / 63* can be connected to the system device bus.

* ECA 62 and ECA 63 have humidity sensors

Application example



Ordering

Controller and enclosure

Type	Designation	Code no.
ECL Comfort 100M	Controller - 230 V a.c.	087B1110
ECL Comfort 100M	Controller - 24 V a.c.	087B1114
Socket - ECL 100	For wall mounting	087B1154
Panel mounting kit	For ECL Comfort	087B1148
Mounting kit	For DIN-rail	087B1145

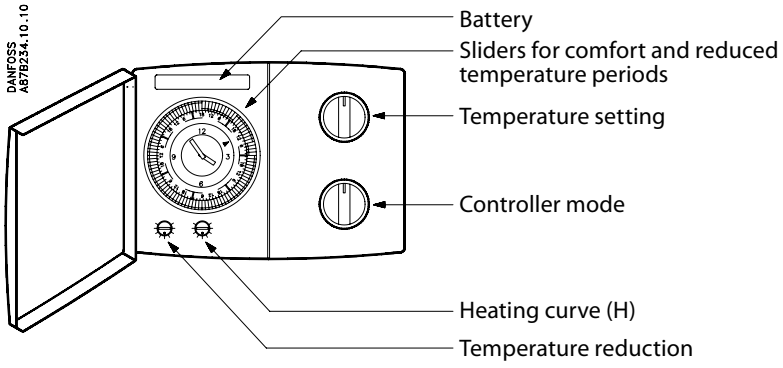
Temperature sensors

Type	Designation	Code no.
ESM-10	Pt 1000 room temperature sensor	087B1164
ESM-11	Pt 1000 surface sensor	087B1165
ESMT	Pt 1000 outdoor sensor	084N1012
ESMB-12	Pt 1000 universal sensor - Ø 6 mm	087B1184
ESMC	Pt 1000 surface sensor	087N0011
ESMU-100	Pt 1000 immersion sensor - 100 mm, copper	087B1180
ESMU-250	Pt 1000 immersion sensor - 250 mm, copper	087B1181
ESMU-100	Pt 1000 immersion sensor - 100 mm, stainless steel	087B1182
ESMU-250	Pt 1000 immersion sensor - 250 mm, stainless steel	087B1183

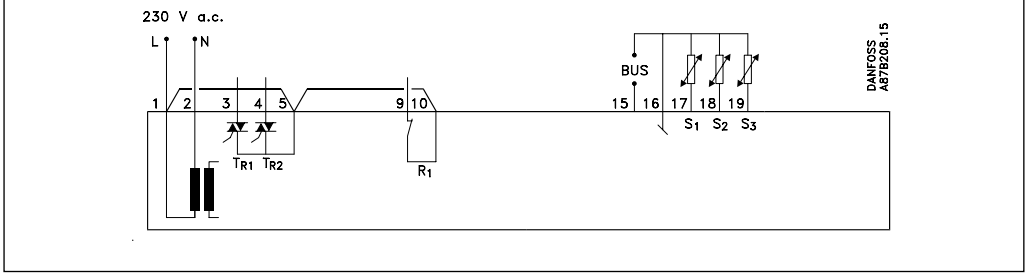
Accessories

Type	Designation	Code no.
ECA 100	Analog clock for ECL Comfort 100	087B1147
ECA 60	Room panel with sensor	087B1140
ECA 61	Remote control with 1 zone clock and sensor	087B1141
ECA 62	Room panel with sensors (°C and % RH)	087B1169
ECA 63	Remote control with sensors (°C and % RH)	087B1143

Operation

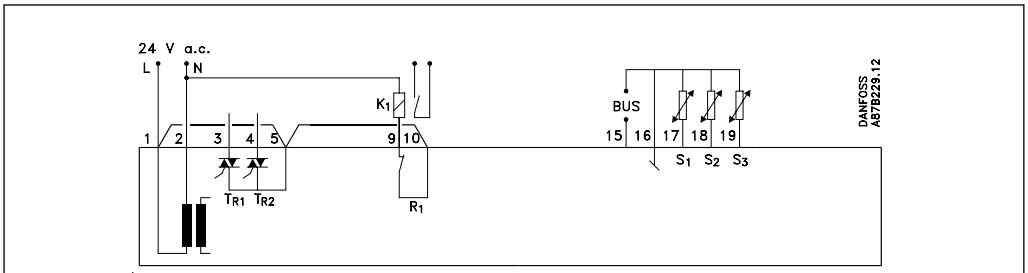


Wiring - 230 V a.c.



Supply voltage	230 V a.c. - 50 Hz
Voltage range	207 to 244 V a.c. (IEC 60038)
Power consumption	5 VA
Load on relay outputs	4(2) A - 230 V a.c.
Load on triac outputs	0.2 A - 230 V a.c.

Wiring - 24 V a.c.



Supply voltage	24 V a.c. - 50 Hz
Voltage range	21.6 to 26.4 V a.c. (IEC 60038)
Power consumption	5 VA
Load on relay outputs	4(2) A - 24 V a.c.
Load on triac outputs	1 A - 24 V a.c.

General data

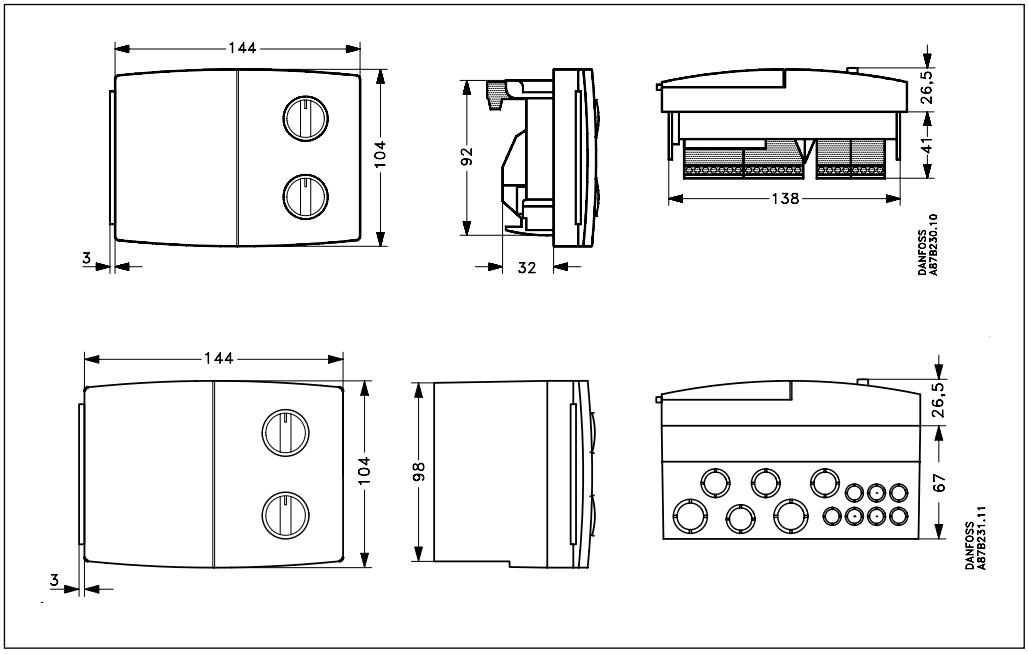
Ambient temperature	0 - 50 °C
Storage temperature	-40 - +70 °C
Enclosure	Wall or panel mounting
Sensor type	Pt 1000 (1000 ohm at 0 °C)
Grade of enclosure	IP 41 - DIN 40050
CE - marking in accordance with the standards	EMC-Directive 89/336/EEC, 92/31/EEC, 93/68/EEC, EN 50081-1 and EN 50082-1 Low Voltage Directive 73/23/EEC and 93/68/EEC

Settings

	Range	Factory setting
Heating curve (H)	0.2 to 2.2	1.2
Parallel displacement	+/-8 x H	0
Heating cut-out	Off, 18 °C	18 °C
Reduced temperature	0 to 14 K or Auto	Auto
Frost protection	Fixed	10 °C
Max. flow limit	45, 90 °C	90 °C
Min. flow limit	10, 25 °C	10 °C
Neutral zone	Fixed	3 K *)
Proportional band	Fixed	80 K *)
Integration time	Fixed	60 sec *)
Motorized valve constant	20 or 120 sec	120 sec

*) *Factory settings that cannot be changed by the user*

Dimensions



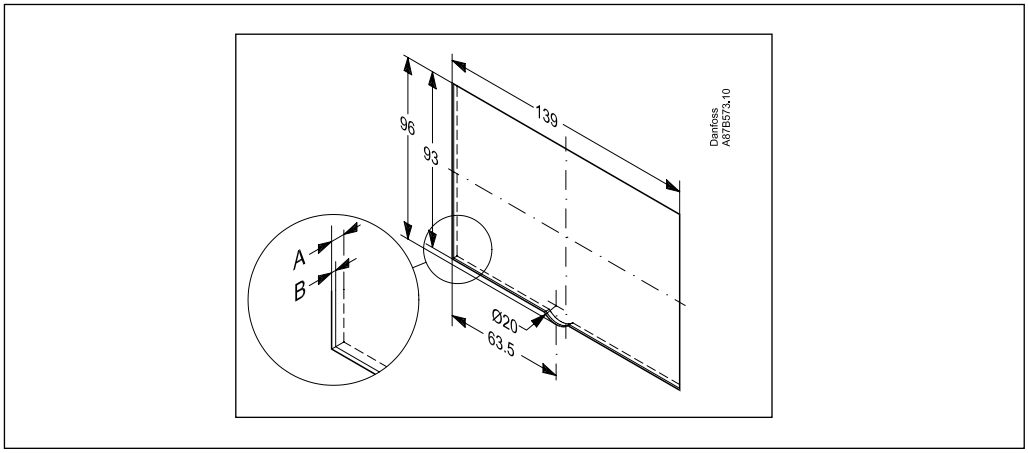
Cut-out for mounting

Mounting in a panel (connector set, code no. 087B1148):

The panel plate thichness A must not exceed 3 mm.

Mounting on a wall (socket code no. 087B1154):

The plate thickness B must not exceed 1 mm.



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